

Abstract

This invention relates to organic light emitting diodes (OLEDs) and to methods for their manufacture. The invention provides an OLED element or display which enables contrast to be produced in an image. In accordance with the invention a layer of ink is patterned as a blocking layer between two OLED layers. The ink reduces or prevents conduction, i.e. movement of charge, between the two OLED layers in that area of the device. The ink may be dark in colour, e.g. black, to increase the contrast ratio of the OLED. The blocking layer is provided between any two layers in the OLED and blocks the charge movement in these areas. The blocking layer may comprise a multiplicity of ink dots, the density of which determines the extent to which conduction is hindered. The blocking layer may be produced as a "grey-scale" pattern wherein the density of dots is varied across the pattern.